

REMARKS/ARGUMENTS

In response to the Official Action dated February 12, 2008, we offer the following submissions and amendments.

Amendments

Claim 1 has been amended to clarify that the combined lengths of the first and second groups of electrical connectors are at least the width of the media feed path. This is readily apparent from all the embodiments described in the specification.

Accordingly, the amendments do not introduce any new matter.

Claims – 35USC§103

Claims 1 to 5 stand rejected as obvious in light of US 6,612,240 to Silverbrook et al in view of US 6,843,552 to McElfresh et.al. The Applicant submits that neither of the cited references suggests a printhead with the printhead ICs being connected to the power source in parallel. This is an essential element of claim 1 and fundamental to the present invention.

Neither of the citations recognize the problem of voltage ‘sag’ at the remote end of a long printhead assembly. Indeed the module of McElfresh is clearly not long enough or wide enough for this to be an issue. In Silverbrook, the modules 104.2 and 106.1 each have a single printhead IC (see col.5, lines 48 to 52) and so the load per module is substantially less than the electrical loads carried by the modules of the present invention, each of which have at east two printhead ICs (see claim 1).

The Examiner argues that restructuring the power and data supply in the cited arrangements to connect the printhead assembly ends in parallel rather than series would be an obvious modification for the ordinary worker. The Applicant disagrees and submits that modifying a circuit design to power loads in parallel rather than series is not a trivial design variation. It is well established that the suggested combination of references should not require a substantial reconstruction and redesign of the elements shown in either of the references or involve a change in the basic principle under which the prior art arrangements were

designed to operate (see MPEP 2143.01(VI)). Series connection and parallel connection are fundamentally different in terms of the device operation.

Furthermore, any rejection based on assertions that a fact is well-known or is common knowledge in the art should be judiciously applied. Such facts should be of notorious character and serve only to "fill in the gaps" in an insubstantial manner to support a §103 rejection (see MPEP 2144.03(E)). As discussed above, the parallel connection is fundamental to the present invention.

In Silverbrook, the modules 104.2 and 106.1 each have a single printhead IC (see col.5, lines 48 to 52). Furthermore, the printhead IC 112 on each module is connected in parallel to two power supplies. The power and data are received at the USB circuit board 98 and fed to the connector 124 at the left end of the PCB 108 and then to the PCB 110 via the **serial** cable 122 (see col. 5, lines 34 to 36).

Similarly, McElfresh does not teach a printhead assembly with printhead ICs supplied with power from two groups of conductors connected to separate sources of power. The contacts 68 and 68¹ are both connected to the (same) electronic controller 20 (see col. 6, lines 22 to 33).

The cited references do not disclose all elements of claim 1 and fail to suggest a printhead assembly with longitudinal ends being supplied with power in parallel.

Likewise, claims 2 to 5 are also novel and inventive by virtue of their dependence (directly or indirectly) from claim 1.

Conclusion

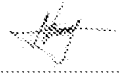
The Applicant respectfully submits that the claim rejection has been successfully traversed. Accordingly favorable reconsideration and allowance of the application is courteously solicited.

Very respectfully,

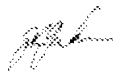
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